

433480_1

SEQUENCE LISTING

<110> Brachmann, Rainer

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<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

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<223> Produced by genetic engineering

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<212> DNA

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<223> Produced by genetic engineering

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<223> Produced by genetic engineering

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<223> Produced by genetic engineering

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<223> Produced by genetic engineering

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<223> Produced by genetic engineering

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aaacctttgg	acggagaata	tttcaccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagcttac	ctcccgccat	1140
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<220>
 <223> Produced by genetic engineering

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<210> 13
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 <212> DNA
 <213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 13

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
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acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
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<210> 14

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

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<210> 15

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 15

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 16

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 16

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 17

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 17

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gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
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<210> 18

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 18

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<210> 19

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 19

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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<210> 20

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<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 20

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<210> 21

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 21

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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<210> 22

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 22

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atgatttgat	gctgtcccca	gacgatattg	aacaatggtt	caactgaagat	ccaggcccag	180
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<210> 23

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 23

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgtgttcc	acaccatgag	540
cgctgctcag	atttctgatg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600

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<210> 24

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 24

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
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<210> 25

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 25

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 26

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 26

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
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<210> 27

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 27

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<210> 28

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 28

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<210> 29

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<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

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<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

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ttccgagagc	tgaatgaggc	cttagaactt	aaggatgcc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 31

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 31

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 32

<211> 1182
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Produced by genetic engineering

<400> 32
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 gatgatttga tgctgtcccc agacgatatt gaacaatggg tcaactgaaga tccaggccca 180
 gatgaagctc cacgaatgcc agaggccgct ccaccggttg cccagcacc agcagctcct 240
 acaccggcgg cccagcttcc ggccccatcc tggcctctgt catcttctgt cccttcccag 300
 aaaacctacc agggcagcta cggtttccgt ctgggcttct tgcattctgg aactgccaag 360
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 tgcccagtc aactgtgggt cgactccacc cctccacctg gtacacgtgt ccgcgcaatg 480
 gccatctaca agcagagcca gcacatgacg gaggtcgtac gacgctgtcc acaccatgag 540
 cgctgctcag attctgatgg tctggcgcca ccacagcatc ttatccgagt ggaaggtaac 600
 ctacgcgtgg agtatctaga tgaccgcaac acttttcgac acagtgtggg ggtgccatat 660
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 tcatgcatgg gcggcatgaa ccggatgccg atcctgacca tcatcactct cgaggattcc 780
 tcaggtaatc tcctaggacg gaattccttt gaggtgcgtg tttgtgcatg cccgggccgc 840
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 ttccgagagc tgaatgaggc cttagaactt aaggatgcc aggctggtaa ggagccagga 1080
 ggagccggtg ctcatagcag ccacctgaag tccaaaaagg gtcagtctac ctcccgccat 1140
 aaaaaactga tgttcaagac cgaaggtcct gactcagact ga 1182

<210> 33
 <211> 1182
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Produced by genetic engineering

<400> 33
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 gatgatttga tgctgtcccc agacgatatt gaacaatggg tcaactgaaga tccaggccca 180
 gatgaagctc cacgaatgcc agaggccgct ccaccggttg cccagcacc agcagctcct 240
 acaccggcgg cccagcttcc ggccccatcc tggcctctgt catcttctgt cccttcccag 300
 aaaacctacc agggcagcta cggtttccgt ctgggcttct tgcattctgg aactgccaag 360
 tctgttactt gtacgtactc tccagccctt aacaagatgt tttgccaact cgcgaagacc 420
 tgcccagtc aactgtgggt cgactccacc cctccacctg gtacacgtgt ccgcgcaatg 480
 gccatctaca agcagagcca gcacatgacg gaggtcgtac gacgctgtcc acaccatgag 540
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 tcatgcatgg gcggcatgaa ccggcgcccg atcctgacca tcatcactct cgaggattcc 780
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 gatcgccgga ccgaagagga gaattctccg aagaaagggt agcctcacca cgagctgcca 900
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 aaaaaactga tgttcaagac cgaaggtcct gactcagact ga 1182

<210> 34
 <211> 1182
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 34

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gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcggaagacc	420
tgcccagttc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 35

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 35

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
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tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcggaagacc	420
tgcccagttc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 36

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

433480_1

<400> 36

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
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tgcccagtc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 37

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 37

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 38

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 38

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433480_1

gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagcttac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 39

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 39

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagcttac	ctcccgccat	1140
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<210> 40

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 40

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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 41

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 41

atggaagaac	cacagtcaga	tcctagcgct	gaaccacctc	tgagtcagga	aaccttttca	60
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gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 42

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 42

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatgg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
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aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 43

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 43

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggtg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcggaagacc	420
tgcccagttcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 44

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 44

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
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tgcccagttcc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600

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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 45

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 45

atggaagaac	cacagtcaga	tcctagcgct	gaaccacctc	tgagtcagga	aaccttttca	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 46

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 46

atggaagaac	cacagtcaga	tcctagcgct	gaaccacctc	tgagtcagga	aaccttttca	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
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tgcccagtc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	attctgatgg	gcacatgacg	gaggtcgatc	gacgctgtcc	acaccatgag	540
cgctgctcag	agcagagcca	tctggcgcca	ccacagcatc	ttacacgagt	ggaaggtaac	600
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagcttac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 47

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 47

tggaagaacc	acagtcagat	cctagcgctc	aaccacctct	gagtcaggaa	accttttcag	60
acctgtggaa	attgtttcct	gaaaacaacg	ttctgtcccc	attgcctagt	caagcaatgg	120
atgatttgat	gctgtcccca	gacgatattg	aacaatgggt	caactgaagat	ccaggcccag	180
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gcagccgtgc	tcatagcagc	cacctgaagt	ccaaaaagg	tcagtctacc	tcccgccata	1140
aaaaaactgat	gttcaagacc	gaaggctcct	actcagactg	a		1181

<210> 48

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 48

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gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
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gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggtg	agcctcacca	cgagctgcca	900
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccccccat	1140
aaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 49

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 49

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ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttttg	acggagaata	tttcaccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccccccat	1140
aaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 50

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 50

atggaagaac	cacagtcaga	tcctagcgct	gaaccacctc	tgagtcagga	aaccttttca	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggttttccgt	ctgggcttct	tgcatctctg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aaccgcatgt	tttgccaact	cgcgaagacc	420
tgcccagtc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggctcgta	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtggt	ggtgccatat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtaacagt	720
tcatgcatgg	gcggcatgaa	ccggcggccg	atcctgacca	tcatcactct	cgaggattcc	780
tcaggtaatc	tcctaggacg	gaattccttt	gagggtgcgtg	tttgtgcatg	cccgggccgc	840
gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggtg	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	gttctccaca	gccaaagaag	960
aaaccttttg	acggagaata	tttcaccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctccccccat	1140

aaaaaactga tgttcaagac cgaaggtcct gactcagact ga 1182

<210> 51

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 51

atggaagaac	cacagtcaga	tcctagcgctc	gaaccacctc	tgagtcagga	aaccttttca	60
gacctgtgga	aattgcttcc	tgaaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggtg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcggaagacc	420
tgcccagttc	aactgtgggt	cgactccacc	cctccaccgg	taacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggctcgta	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtggg	ggtgccatat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtaacagt	720
tcatgcattg	gcggcatgaa	ccggcgggccg	atcctgacca	tcatactct	cgaggattcc	780
tcaggtaatc	tcctaggacg	gaattccttt	gagggtgcgtg	tttgtgcatg	cccgggcccgc	840
gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggtg	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	gttctccaca	gccaaagaag	960
aaacctttgg	acggagaata	tttcaccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagctctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 52

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 52

atggaagaac	cacagtcaga	tcctagcgctc	gaaccacctc	tgagtcagga	aaccttttca	60
gacctgtgga	aattgcttcc	tgaaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggg	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccgggtg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcggaagacc	420
tgcccagttc	aactgtgggt	cgactccacc	cctccaccgtg	gtacacgtgt	ccgcgcaatg	480
acaatctaca	agcagagcca	gcacatgacg	gaggctcgta	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtggg	ggtgccatat	660
gagccaccag	aagttggctc	tgactgcacc	accatccact	acaactatat	gtgtaacagt	720
tcatgcattg	gcggcatgaa	ccggcgggccg	atcctgacca	tcatactct	cgaggattcc	780
tcaggtaatc	tcctaggacg	gaattccttt	gagggtgcgtg	tttgtgcatg	cccgggcccgc	840
gatcgccgga	ccgaagagga	gaatctccgg	aagaaagggtg	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	gttctccaca	gccaaagaag	960
aaacctttgg	acggagaata	tttcaccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagctctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggtcct	gactcagact	ga		1182

<210> 53

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 53

atggaagaac	cacagtcaga	tcctagcgtc	gaaccacctc	tgagtcagga	aaccttttca	60
gacctgtgga	aattgcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgtcccc	agacgatatt	gaacaatggt	tcactgaaga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccaccggttg	ccccagcacc	agcagctcct	240
acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcgagacc	420
tgcccagtc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggctgtac	gacgctgtcc	acaccatgag	540
cgctgctcag	attctgatgg	tctggcgcca	ccacagcatc	ttatccgagt	ggaaggtaac	600
ctacgcgtgg	agtatctaga	tgaccgcaac	acttttcgac	acagtgtggt	ggtgccatat	660
gagccaccag	aagtgtgctc	tgactgcacc	accatccact	acaactatat	gtgtaacagt	720
tcatgcatgg	gcggcatgaa	ccggcgggccg	atcctgacca	tcatcactct	cgaggattcc	780
tcaggtaatc	tcctaggacg	gaattccttt	gagggtgcgtg	tttgtgcatg	cccgggcccgc	840
gagcgccgga	ccgaagagga	gaatctccgg	aagaaagggtg	agcctcacca	cgagctgcca	900
ccaggaagca	ctaagcgagc	actgccaaac	aacaccagca	gttctccaca	gccaaagaag	960
aaacctttgg	acggagaata	tttcaccctt	cagatccgtg	gccgtgagcg	gttcgagatg	1020
ttccgagagc	tgaatgaggc	cttagaactt	aaggatgccc	aggctggtaa	ggagccagga	1080
ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 54

<211> 393

<212> PRT

<213> Homo sapiens

<400> 54

Met	Glu	Glu	Pro	Gln	Ser	Asp	Pro	Ser	Val	Glu	Pro	Pro	Leu	Ser	Gln
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Glu	Thr	Phe	Ser	Asp	Leu	Trp	Lys	Leu	Leu	Pro	Glu	Asn	Asn	Val	Leu
			20					25				30			
Ser	Pro	Leu	Pro	Ser	Gln	Ala	Met	Asp	Asp	Leu	Met	Leu	Ser	Pro	Asp
		35					40				45				
Asp	Ile	Glu	Gln	Trp	Phe	Thr	Glu	Asp	Pro	Gly	Pro	Asp	Glu	Ala	Pro
	50				55					60					
Arg	Met	Pro	Glu	Ala	Ala	Pro	Pro	Val	Ala	Pro	Ala	Pro	Ala	Ala	Pro
	65			70					75					80	
Thr	Pro	Ala	Ala	Pro	Ala	Pro	Ala	Pro	Ser	Trp	Pro	Leu	Ser	Ser	Ser
			85					90					95		
Val	Pro	Ser	Gln	Lys	Thr	Tyr	Gln	Gly	Ser	Tyr	Gly	Phe	Arg	Leu	Gly
			100					105					110		
Phe	Leu	His	Ser	Gly	Thr	Ala	Lys	Ser	Val	Thr	Cys	Thr	Tyr	Ser	Pro
		115				120					125				
Ala	Leu	Asn	Lys	Met	Phe	Cys	Gln	Leu	Ala	Lys	Thr	Cys	Pro	Val	Gln
	130				135						140				
Leu	Trp	Val	Asp	Ser	Thr	Pro	Pro	Pro	Gly	Thr	Arg	Val	Arg	Ala	Met
	145				150					155				160	
Ala	Ile	Tyr	Lys	Gln	Ser	Gln	His	Met	Thr	Glu	Val	Val	Arg	Arg	Cys
			165					170						175	
Pro	His	His	Glu	Arg	Cys	Ser	Asp	Ser	Asp	Gly	Leu	Ala	Pro	Pro	Gln
			180				185						190		
His	Leu	Ile	Arg	Val	Glu	Gly	Asn	Leu	Arg	Val	Glu	Tyr	Leu	Asp	Asp
		195					200					205			
Arg	Asn	Thr	Phe	Arg	His	Ser	Val	Val	Val	Pro	Tyr	Glu	Pro	Pro	Glu
	210					215					220				

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Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
 225 230 235 240
 Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
 245 250 255
 Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
 260 265 270
 Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Asn
 275 280 285
 Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
 290 295 300
 Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
 305 310 315 320
 Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
 325 330 335
 Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
 340 345 350
 Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His
 355 360 365
 Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met
 370 375 380
 Phe Lys Thr Glu Gly Pro Asp Ser Asp
 385 390

<210> 55

<211> 393

<212> PRT

<213> Homo sapiens

<400> 55

Met Glu Glu Pro Gln Ser Asp Pro Ser Val Glu Pro Pro Leu Ser Gln
 1 5 10 15
 Glu Thr Phe Ser Asp Leu Trp Lys Leu Leu Pro Glu Asn Asn Val Leu
 20 25 30
 Ser Pro Leu Pro Ser Gln Ala Met Asp Asp Leu Met Leu Ser Pro Asp
 35 40 45
 Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
 50 55 60
 Arg Met Pro Glu Ala Ala Pro Arg Val Ala Pro Ala Pro Ala Ala Pro
 65 70 75 80
 Thr Pro Ala Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser
 85 90 95
 Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
 100 105 110
 Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
 115 120 125
 Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
 130 135 140
 Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met
 145 150 155 160
 Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys
 165 170 175
 Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln
 180 185 190
 His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp
 195 200 205
 Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu
 210 215 220
 Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
 225 230 235 240
 Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
 245 250 255
 Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
 260 265 270

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Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn
 275 280 285
 Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
 290 295 300
 Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
 305 310 315 320
 Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
 325 330 335
 Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
 340 345 350
 Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His
 355 360 365
 Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met
 370 375 380
 Phe Lys Thr Glu Gly Pro Asp Ser Asp
 385 390

<210> 56

<211> 393

<212> PRT

<213> Homo sapiens

<400> 56

Met Glu Glu Pro Gln Ser Asp Pro Ser Val Glu Pro Pro Leu Ser Gln
 1 5 10 15
 Glu Thr Phe Ser Asp Leu Trp Lys Leu Leu Pro Glu Asn Asn Val Leu
 20 25 30
 Ser Pro Leu Pro Ser Gln Ala Met Asp Asp Leu Met Leu Ser Ser Asp
 35 40 45
 Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
 50 55 60
 Arg Met Pro Glu Ala Ala Pro Arg Val Ala Pro Ala Pro Ala Ala Pro
 65 70 75 80
 Thr Pro Ala Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser
 85 90 95
 Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
 100 105 110
 Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
 115 120 125
 Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
 130 135 140
 Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met
 145 150 155 160
 Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys
 165 170 175
 Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln
 180 185 190
 His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp
 195 200 205
 Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu
 210 215 220
 Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
 225 230 235 240
 Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
 245 250 255
 Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
 260 265 270
 Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Asn
 275 280 285
 Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
 290 295 300
 Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys

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305	Lys	Pro	Leu	Asp	Gly	310	Glu	Tyr	Phe	Thr	Leu	315	Gln	Ile	Arg	Gly	Arg	320	Glu
					325							330					335		
	Arg	Phe	Glu	Met	Phe	Arg	Glu	Leu	Asn		Glu	Ala	Leu	Glu	Leu	Lys	Asp		
				340					345							350			
	Ala	Gln	Ala	Gly	Lys	Glu	Pro	Gly	Gly	Ser	Arg	Ala	His		Ser	Ser	His		
				355				360					365						
	Leu	Lys	Ser	Lys	Lys	Gly	Gln	Ser	Thr	Ser	Arg	His	Lys	Lys	Leu	Met			
		370					375					380							
	Phe	Lys	Thr	Glu	Gly	Pro	Asp	Ser	Asp										
	385					390													

<210> 57

<211> 393

<212> PRT

<213> Homo sapiens

<400> 57

Met	Glu	Glu	Pro	Gln	Ser	Asp	Pro	Ser	Val	Glu	Pro	Pro	Leu	Ser	Gln				
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Glu	Thr	Phe	Ser	Asp	Leu	Trp	Lys	Leu	Leu	Pro	Glu	Asn	Asn	Val	Leu				
			20					25					30						
Ser	Pro	Leu	Pro	Ser	Gln	Ala	Met	Asp	Asp	Leu	Met	Leu	Ser	Ser	Asp				
		35					40					45							
Asp	Ile	Glu	Gln	Trp	Phe	Thr	Glu	Asp	Pro	Gly	Pro	Asp	Glu	Ala	Pro				
	50					55				60									
Arg	Met	Pro	Glu	Ala	Ala	Pro	Pro	Val	Ala	Pro	Ala	Pro	Ala	Ala	Pro				
	65				70				75						80				
Thr	Pro	Ala	Ala	Pro	Ala	Pro	Ala	Pro	Ser	Trp	Pro	Leu	Ser	Ser	Ser				
				85				90					95						
Val	Pro	Ser	Gln	Lys	Thr	Tyr	Gln	Gly	Ser	Tyr	Gly	Phe	Arg	Leu	Gly				
			100					105					110						
Phe	Leu	His	Ser	Gly	Thr	Ala	Lys	Ser	Val	Thr	Cys	Thr	Tyr	Ser	Pro				
		115					120					125							
Ala	Leu	Asn	Lys	Met	Phe	Cys	Gln	Leu	Ala	Lys	Thr	Cys	Pro	Val	Gln				
		130					135					140							
Leu	Trp	Val	Asp	Ser	Thr	Pro	Pro	Pro	Gly	Thr	Arg	Val	Arg	Ala	Met				
	145				150				155						160				
Ala	Ile	Tyr	Lys	Gln	Ser	Gln	His	Met	Thr	Glu	Val	Val	Arg	Arg	Cys				
			165						170					175					
Pro	His	His	Glu	Arg	Cys	Ser	Asp	Ser	Asp	Gly	Leu	Ala	Pro	Pro	Gln				
			180					185					190						
His	Leu	Ile	Arg	Val	Glu	Gly	Asn	Leu	Arg	Val	Glu	Tyr	Leu	Asp	Asp				
		195					200					205							
Arg	Asn	Thr	Phe	Arg	His	Ser	Val	Val	Val	Pro	Tyr	Glu	Pro	Pro	Glu				
	210					215					220								
Val	Gly	Ser	Asp	Cys	Thr	Thr	Ile	His	Tyr	Asn	Tyr	Met	Cys	Asn	Ser				
	225				230				235						240				
Ser	Cys	Met	Gly	Gly	Met	Asn	Arg	Arg	Pro	Ile	Leu	Thr	Ile	Ile	Thr				
			245					250					255						
Leu	Glu	Asp	Ser	Ser	Gly	Asn	Leu	Leu	Gly	Arg	Asn	Ser	Phe	Glu	Val				
			260					265					270						
Arg	Val	Cys	Ala	Cys	Pro	Gly	Arg	Asp	Arg	Arg	Thr	Glu	Glu	Glu	Asn				
		275					280					285							
Leu	Arg	Lys	Lys	Gly	Glu	Pro	His	His	Glu	Leu	Pro	Pro	Gly	Ser	Thr				
		290				295					300								
Lys	Arg	Ala	Leu	Pro	Asn	Asn	Thr	Ser	Ser	Ser	Pro	Gln	Pro	Lys	Lys				
	305				310				315						320				
Lys	Pro	Leu	Asp	Gly	Glu	Tyr	Phe	Thr	Leu	Gln	Ile	Arg	Gly	Arg	Glu				
			325						330				335						
Arg	Phe	Glu	Met	Phe	Arg	Glu	Leu	Asn	Glu	Ala	Leu	Glu	Leu	Lys	Asp				
			340					345					350						
Ala	Gln	Ala	Gly	Lys	Glu	Pro	Gly	Gly	Ser	Arg	Ala	His	Ser	Ser	His				

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355 360 365
 Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met
 370 375 380
 Phe Lys Thr Glu Gly Pro Asp Ser Asp
 385 390

<210> 58
 <211> 2629
 <212> DNA
 <213> Homo sapiens

<400> 58
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 agagccaccg tccaggggagc aggtagctgc tgggctccgg ggacactttg cgttcgggct 180
 gggagcgtgc tttccacgac ggtgacacgc ttccctggat tggcagccag actgccttcc 240
 gggtcactgc catggaggag ccgcagtcag atcctagcgt cgagccccct ctgagtcagg 300
 aaacattttc agacctatgg aaactacttc ctgaaaacaa cgttctgtcc cccttgccgt 360
 cccaagcaat ggatgatttg atgtgtgcc cggacgatat tgaacaatgg ttcactgaag 420
 acccaggtcc agatgaagct cccagaatgc cagaggctgc tccccgcgtg gccccctgcac 480
 cagcagctcc tacaccggcg gccccctgcac cagccccctc ctggccccctg tcattctctg 540
 tcccttccca gaaaacctac cagggcagct acgggtttccg tctgggcttc ttgcattctg 600
 ggacagccaa gtctgtgact tgcactgact cccctgccct caacaagatg ttttgccaac 660
 tggccaagac ctgcccgtgtg cagctgtggg ttgattccac acccccgccc ggcaccgcg 720
 tccgcgccat ggccatctac aagcagtcac agcacatgac ggaggttggt aggcgtgcc 780
 cccaccatga gcgctgtca gatagcgatg gtctggcccc tcctcagcat cttatccgag 840
 tgggaaggaaa ttgctgtgtg gagtatttgg atgacagaaa cacttttcga catagtgtgg 900
 tggtgcccta tgagccgcct gaggttggct ctgactgtac caccatccac tacaactaca 960
 tgtgtaacag ttccctgcatg ggcggcatga accggaggcc catcctcacc atcatcacac 1020
 tggaaagactc cagtggtaat ctactgggac ggaacagctt tgaggtgcgt gtttgtgcct 1080
 gtcctgggag agaccggcgc acagaggaag agaattctccg caagaaaggg gagcctcacc 1140
 acgagctgcc cccaggggagc actaagcgag cactgcccac caacaccagc tcctctcccc 1200
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tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcggaagacc	420
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gccatctaca	agcagagcca	gcacatgacg	gaggctgtac	gacgctgtcc	acaccatgag	540
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 65

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 65

atggaagaac	cacagtcaga	tcctagcgctc	gaaccacccc	tgagtcagga	aaccttttca	60
gatctgtgga	agcttcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120

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acaccggcgg	ccccagctcc	ggccccatcc	tggcctctgt	catcttctgt	cccttcccag	300
aaaacctacc	agggcagcta	cggtttccgt	ctgggcttct	tgcattctgg	aactgccaaag	360
tctgttactt	gtacgtactc	tccagccctt	aacaagatgt	tttgccaact	cgcggaagacc	420
tgcccagttc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
gccatctaca	agcagagcca	gcacatgacg	gaggtcgtac	gacgctgtcc	acaccatgag	540
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 66

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 66

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gatgatttga	tgctgagctc	ggacgatatt	gaacaatggt	tcactgagga	tccaggccca	180
gatgaagctc	cacgaatgcc	agaggccgct	ccacgcgttg	ccccagcacc	agcagctcct	240
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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
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<210> 67

<211> 1182

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 67

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gatgatttga	tgctgagctc	ggacgatatt	gaacaatggt	tcactgagga	tccaggccca	180

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ggcagccgtg	ctcatagcag	ccacctgaag	tccaaaaagg	gtcagtctac	ctcccgccat	1140
aaaaaactga	tgttcaagac	cgaaggctct	gactcagact	ga		1182

<210> 68

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 68

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gatctgtgga	agcttcttcc	tgaaaacaac	gttctgtccc	cattgcctag	tcaagcaatg	120
gatgatttga	tgctgagccc	agacgatatt	gaacaatggt	tactgagga	tccaggccca	180
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tgcccagttc	aactgtgggt	cgactccacc	cctccacctg	gtacacgtgt	ccgcgcaatg	480
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<210> 69

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 69

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ggcagccggg	cccattcgtc	tcacctgaag	tccaaaaagg	gtcagtctac	tagtcgccat	1140
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<210> 70

<211> 1181

<212> DNA

<213> Artificial Sequence

<220>

<223> Produced by genetic engineering

<400> 70

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<210> 71

<211> 1179

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(1179)

<221> misc_feature

<222> (1)...(1179)

<223> n = A,T,C or G

<400> 71

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1				5					10					15		

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gar Glu	acn Thr	tty Phe	nnn Ser 20	gay Asp	ytn Leu	tgg Trp	aar Lys 25	ytn Leu 25	ytn Leu	ccn Pro	gar Glu	aay Asn 30	aay Asn 30	gtn Val	ytn Leu	96
nnn Ser	ccn Pro 35	ytn Leu 35	ccn Pro	nnn Ser	car Gln	gcn Ala 40	atg Met 40	gay Asp	gay Asp	ytn Leu 45	atg Met 45	ytn Leu 45	nnn Ser	ccn Pro	gay Asp	144
gay Asp 50	ath Ile 50	gar Glu	car Gln	tgg Trp	tty Phe 55	acn Thr 55	gar Glu	gay Asp	ccn Pro	ggn Gly 60	ccn Pro 60	gay Asp	gar Glu	gcn Ala	ccn Pro	192
nnn Arg 65	atg Met	ccn Pro	gar Glu	gcn Ala 70	gcn Ala 70	ccn Pro	ccn Pro	gtn Val	gcn Ala 75	ccn Pro 75	gcn Ala 75	ccn Pro	gcn Ala	gcn Ala	ccn Pro 80	240
acn Thr	ccn Pro	gcn Ala	gcn Ala	ccn Pro 85	gcn Ala	ccn Pro	gcn Ala	ccn Pro	nnn Ser 90	tgg Trp	ccn Pro	ytn Leu	nnn Ser 95	nnn Ser 95	nnn Ser	288
gtn Val	ccn Pro	nnn Ser	car Gln 100	aar Lys	acn Thr	tay Tyr	car Gln	ggn Gly 105	nnn Ser	tay Tyr	ggn Gly	tty Phe 110	nnn Arg 110	ytn Leu	ggn Gly	336
tty Phe	ytn Leu	cay His 115	nnn Ser	ggn Gly	acn Thr	gcn Ala	aar Lys 120	nnn Ser	gtn Val	acn Thr	tgy Cys 125	acn Thr 125	tay Tyr	nnn Ser	ccn Pro	384
gcn Ala 130	ytn Leu 130	aay Asn	aar Lys	atg Met	tty Phe	tgy Cys 135	car Gln	ytn Leu	gcn Ala	aar Lys	acn Thr 140	tgy Cys 140	ccn Pro	gtn Val	car Gln	432
ytn Leu 145	tgg Trp	gtn Val	gay Asp	nnn Ser	acn Thr 150	ccn Pro	ccn Pro	ccn Pro	ggn Gly 155	acn Thr 155	nnn Arg	gtn Val	nnn Arg	gcn Ala	atg Met 160	480
gcn Ala	ath Ile	tay Tyr	aar Lys	car Gln 165	nnn Ser	car Gln	cay His	atg Met	acn Thr 170	gar Glu	gtn Val	gtn Val	nnn Arg	nnn Arg	tgy Cys 175	528
ccn Pro	cay His	cay His	gar Glu 180	nnn Arg	tgy Cys	nnn Ser	gay Asp	nnn Ser 185	gay Asp	ggn Gly	ytn Leu	gcn Ala	ccn Pro 190	ccn Pro	car Gln	576
cay His	ytn Leu	ath Ile 195	nnn Arg	gtn Val	gar Glu	ggn Gly	aay Asn 200	ytn Leu	nnn Arg	gtn Val	gar Glu	tay Tyr 205	ytn Leu	gay Asp	gay Asp	624
nnn Arg 210	aay Asn	acn Thr	tty Phe	nnn Arg	cay His	nnn Ser 215	gtn Val	gtn Val	gtn Val	ccn Pro	tay Tyr 220	gar Glu	ccn Pro	ccn Pro	gar Glu	672
gtn Val 225	ggn Gly	nnn Ser	gay Asp	tgy Cys	acn Thr 230	acn Thr	ath Ile	cay His	tay Tyr	aay Asn 235	tay Tyr	atg Met	tgy Cys	aay Asn	nnn Ser 240	720
nnn Ser	tgy Cys	atg Met	ggn Gly 245	ggn Gly	atg Met	aay Asn	nnn Arg	nnn Arg	ccn Pro 250	ath Ile	ytn Leu	acn Thr	ath Ile 255	ath Ile	acn Thr	768
ytn Leu	gar Glu	gay Asp	nnn Ser 260	nnn Ser	ggn Gly	aay Asn	ytn Leu 265	ytn Leu 265	ggn Gly	nnn Arg	aay Asn	nnn Ser	tty Phe 270	gar Glu	gtn Val	816

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Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn	
275 280 285	
ytn nnn aar aar ggn gar ccn cay cay gar ytn ccn ccn ggn nnn acn	912
Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr	
290 295 300	
aar nnn gcn ytn ccn aay aay acn nnn nnn nnn ccn car ccn aar aar	960
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys	
305 310 315 320	
aar ccn ytn gay ggn gar tay tty acn ytn car ath nnn ggn nnn gar	1008
Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu	
325 330 335	
nnn tty gar atg tty nnn gar ytn aay gar gcn ytn gar ytn aar gay	1056
Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp	
340 345 350	
gcn car gcn ggn aar gar ccn ggn ggn nnn nnn gcn cay nnn nnn cay	1104
Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His	
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Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met	
370 375 380	
tty aar acn gar ggn ccn gay nnn gay	1179
Phe Lys Thr Glu Gly Pro Asp Ser Asp	
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